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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,230	07/02/2001	Tomoko Atagi	NAK1-BP28	9025

7590

03/07/2003

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EXAMINER

TRAN, CHUC

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/897,230

Applicant(s)

ATAGI, TOMOKO

Examiner

Chuc D Tran

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 15-21 is/are allowed.
- 6) ☒ Claim(s) 9-13 and 22 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 9-11, 12-13 and 22, are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe et al (USP. 5,801,483).

Regarding claims 9 and 10, Watanabe et al disclose a fluorescent lamp comprising:

- a glass tube (2) having a protective layer (21) formed on an inner surface thereof (Col. 6, Line 24) a phosphor layer (22) formed on the protective layer (21) (Col. 7, Line 19) (Fig. 9) and mercury and rare gas (Col. 3, Line 13-16) (Fig. 1) (See Abstract);
- an electrodes (4) that cause an electrical discharge within the fluorescent tube (Col. 3, Line 1); wherein
- the protective layer (21) contains an emissive element emitting (Col. 6, Line 24), the emissive element emitting, when exposed to the first ultraviolet light that is emitted due to mercury excitation (Col. 6, Line 63), second ultraviolet light that has a longer wavelength than the first ultraviolet light (Col. 3, Line 25).

Regarding claim 11, Watanabe et al also disclose the fluorescent lamp of claim 9,

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wherein a first luminous flux that is formed by visible light emitted from phosphor layer when exposed to the first ultraviolet light (Col. 4, Line 19-35), a second luminous flux that is formed by visible light emitted from the emissive element when exposed to the first ultraviolet light (Col. 4, Line 43), and a third luminous flux that is formed by visible light emitted from the phosphor layer when exposed to the second ultraviolet light (Col. 4, Line 48), wherein the second luminous flux and the third luminous flux together constitute at least 2% of the entire luminous flux emitted from the fluorescent lamp (Col. 4, line 41) (Col. 5, Line 11).

Regarding claim 12, Watanabe et al disclose a fluorescent lamp comprising:

- a glass tube (2) having a protective layer (21) formed on an inner surface thereof (Fig. 9)) a phosphor layer (22) formed on an inner surface of the glass tube (Col. 7, Line 19) and mercury and rare gas (Col. 3, Line 13-16) (Fig. 1) (See Abstract);
- an electrodes (4) that cause an electrical discharge within the fluorescent tube (Col. 3, Line 1); wherein
- the protective layer contains at least one an emissive element europium (Col. 3, Line 39); wherein

Regarding claim 13, Watanabe et al also disclose the fluorescent lamp of claim 12, wherein the protective layer contains .01wt% to 10wt% of an oxide of at least one element lanthanum (Col. 3, Line 35).

Regarding claim 22, Watanabe et al disclose an incandescent lamp comprising:

- a glass tube (2) is made of a soda glass (Col. 2, Line 62) having a phosphor layer (7) formed on an inner surface of the glass tube (Col. 3, Line 22) and mercury and rare gas (Col. 3, Line 13-16) (Fig. 1) (See Abstract);

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- an electrodes (4) that cause an electrical discharge within the fluorescent tube (Col. 3, Line 1);
- the glass tube (2) being made of a base material that is one of glass and quartz (Col. 2, Line 66); wherein
- the glass tube contains at least one an emissive element europium (Col. 3, Line 39); and
- the glass material contains .01wt% to 10wt% of an oxide of at least one element lanthanum (Col. 3, Line 35);
- the emissive element emitting, when exposed to the first ultraviolet light that is emitted due to mercury excitation (Col. 6, Line 63), second ultraviolet light that has a longer wavelength than the first ultraviolet light (Col. 3, Line 25).

Allowable Subject Matter

3. Claims 1-8, 14-21 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art of record fails to appreciate the advantage offered the glass tube is made of a glass material that contains an emissive element with the following distinctive features such as set by all of the independent claims. In particular, the art of record fails to teach or fairly suggest at least one of the emissive element selected from the group consisting of titanium...lutetium posses all of the distinctive features such as defined by independent claims 1, 6, 15, 18, 19 and 21, when it exposed the first ultraviolet light that is emitted due to mercury excitation while offering the second ultraviolet light that has a longer wavelength than the first ultraviolet light.

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Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

4. Applicant's arguments filed 12/17/02 have been fully considered but they are not persuasive.

Applicants argue that the patent by Watanabe et al does not teach or suggest "a fluorescent tube having a protective layer", "a phosphor layer formed on the protective layer", or "wherein the protective layer contains an oxide of at least one element selected from the group of lanthanum...terbium". The Examiner respectfully disagrees. The Watanabe et al clearly disclose fluorescent lamp (1) which including an emissive element to improve the luminous efficiency of the lamp (See Col. 3, Line 31) (Col. 3, line 46);

- a fluorescent tube (1) having a protective layer (21) (Col. 6, Line 25);
- a phosphor layer (22) formed on the protective layer (21) (Col.7, Line 19)

(Fig. 9);

- the protective layer contains an oxide of at least one element selected from the group of lanthanum...terbium (Col. 3, Line 35).

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Inquiry

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuc D Tran whose telephone number is (703)306-5984. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (703)308-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

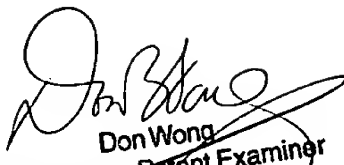
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TDC

February 26, 2003


Don Wong
Supervisory Patent Examiner
Technology Center 2800